



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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January 30, 2001

CERTIFIED RETURN RECEIPT
7000 0520 0021 7582 8494

Anthony Christofferson
Geneva Rock Products, Inc.
P.O. Box 538
Orem, Utah 84059

Re: Initial Review of Notice of Intention to Commence Large Mining Operations, Geneva Rock Products, Inc., Levan Gypsum Mine, M/023/016, Juab County, Utah

Dear Mr. Christofferson:

The Division has completed a review of your draft Notice of Intention to Commence Large Mining Operations (LMO) for the Levan Gypsum Mine, located in Juab County, Utah, which was received August 24, 2000. After reviewing the information, the Division has the following comments which will need to be addressed before tentative approval may be granted. The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion. Please provide a response to this review within 30 days of your receipt of this letter.

The Division will suspend further review of the Levan Gypsum mine LMO until your response to this letter is received. If you have any questions in this regard please contact me, Tony Gallegos, Lynn Kunzler, Tom Munson or Doug Jensen of the Minerals Staff. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb
Attachment: Review

REVIEW OF NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

**Geneva Rock Company
Levan Gypsum Mine**

M/023/016
January 26, 2001

R647-4-105 - Maps, Drawings & Photographs

105.1 Topographic base map, boundaries, pre-act disturbance

Please include an overlay of the mine disturbances (existing and proposed) on the base map II-C which includes the surface ownership boundaries. (AG)

The disturbed area polygon for the first quarry excavation as shown on map II-E does not agree with the polygon shown on map II-D of the current disturbances. Please explain the reason for this discrepancy, and revise the map(s) if appropriate. (AG)

105.2 Surface facilities map

The surface facilities map II-D does not show the surface disturbance due to fill construction of the road through such steep terrain. Please modify the map to show the actual area affected by the access road, or justify why this information is not necessary. (AG)

Given the steep terrain, it is doubtful that the quarry excavation disturbances will follow the regular geometric shapes as shown on maps II-E, III-B, etc. Please modify these maps to more accurately reflect the current and proposed quarry disturbances, or explain why this is not necessary (i.e., the geometric shapes include an undisturbed buffer zone around the quarry disturbance, etc.). (AG)

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

Please modify the reclamation map II-E to reflect any changes made to the other maps in response to the comments under section 105.2 above. (AG)

Please provide cross sections showing the proposed bench and pit floor configurations for the two quarry excavations. This information is needed to evaluate the variance request and safety measures being proposed. (AG)

R647-4-106 - Operation Plan

106.3 Estimated acreages disturbed, reclaimed, annually.

Please explain how the disturbed area of 6.68 acres was calculated for the access/haul roads. The acreage total under this heading in the submission appears to be incorrect. The figures in this listing total 36.80 acres rather than 37.55. Please confirm this acreage. (AG)

106.6 Plan for protecting & redepositing soils

In addition to placing berms around topsoil stock piles, they should also be seeded with a quick cover of grass and legumes unless the soil material will be used for concurrent

reclamation during the same year (season) that it is salvaged. Please see attached recommended seed mix for stabilizing topsoil stockpiles. (LK)

The volume of soil to be salvaged and stockpiled is described as being 14,400 cubic yards. Please explain how this volume was calculated using the 16 acre area with soil depths ranging from 10 - 40 inches. The submission states soil materials will be placed at a six inch depth over the areas to be reclaimed. A volume of 14,400 cubic yards will cover approximately 17.8 acres. Please explain this discrepancy between proposed soil replacement depth and soil stockpile volumes. Also, please explain the discrepancy between the production of waste/overburden at 900 cubic yards per year (which includes soil, vegetation and rock debris) and only 14,400 cubic yards of soil materials to be stockpiled and used in reclamation. (AG)

106.9 Location & size of ore, waste, tailings, ponds

Please show on the appropriate figure the location of berms and the sediment pond used for erosion and sediment control.(TM)

R647-4-107 - Operation Practices

107.1 Public safety & welfare

107.1.12 Disposal of trash, scrap, debris

Please describe the location and approximate size of the small bone yard as described under this heading of the submission. Please explain whether this feature was included in the estimated surface disturbance. (AG)

107.2 Drainages to minimize damage

The operation plan describes the main drainage being moved to the east, but the grade remaining unchanged under section 110.2. Please provide the location of the rerouted drainage section on a map and describe what has been done to ensure its stability both during the operation phase and the post-mining phase when the pad will remain. The road to the pit also transects a drainage, therefore, please describe how these sites will be protected during mining and reconstructed following mining. (TM)

107.3 Erosion control & sediment control

The plan talks about a pond on the lower pad and berms at appropriate places. The Division does not feel this is unacceptable, but would like to have the location of these structures shown on a map and a description of the size of the berms in the plan. (TM)

107.4 Deleterious material safely stored or removed

Please show the location of the two diesel tanks to be kept on site on the surface facilities map(s). Please describe the capacities of these tanks and an estimate of the fuel volumes to be stored on site. Please confirm the existence of a Spill Prevention and Contamination Control Plan for the fuel storage facilities or explain why this is unnecessary. (AG)

R647-4-109 - Impact Assessment

109.2 Impacts to threatened & endangered wildlife/habitat

Please explain why this proposal will not adversely affect the golden eagle nest sites located within 0.5 miles from the site. Please show the locations of these nest sites in respect to the operations on a quad map or map of other suitable scale. (AG)

109.4 Slope stability, erosion control, air quality, safety

Please describe the safety berms to be constructed above the highwalls by providing design drawings or by describing the dimensions (height, width, shape, length) of these berms. Please describe the configuration of the natural slopes adjacent to the quarry excavations. (AG)

R647-4-110 - Reclamation Plan

110.1 Concurrent & post mining land use

Please describe the post reclamation condition of the private property proposed to remain for use as an equestrian staging area and camping. Please describe the acreage of this area and indicate the borders of this post mine land use area on the reclamation map. (AG)

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

The submission proposes a variance request to allow quarry highwalls to remain as the final grade for portions of the mine site. The Minerals Rules require all highwalls to be stabilized by backfilling against them or by cutting the wall back to achieve a slope angle of 45 degrees or less. Please refer to section R647-4-113 for additional comments on this highwall variance request. (AG)

Please describe the proposed reclamation treatments for the floors of the two quarry excavations. Please show the location of the sediment pond which is proposed to remain unreclaimed on the reclamation map. Please describe how soil will be placed on the highwall benches and the method of seeding for these benches. (AG)

110.3 Description of facilities to be left (post mining use)

The NOI states that the pad and access road for material processing and storage will be graded to eliminate any hazards, but will not be reclaimed (assumed revegetated) for possible use as equestrian staging and camping facilities. For areas other than the road, light ripping and seeding should be performed. The Division can consider alternative revegetation success standards for this area. (LK)

110.5 Revegetation planting program

Topsoil from the area is low in organic matter. To increase %OM in the soils. An application of 10 tons/acre of composted manure should be applied. This will also greatly increase the likelihood of revegetation success. (LK)

The NOI identifies that most revegetation will be completed with a hydroseeder, and mixing fibermulch, seed and fertilizer in one application. This needs to be corrected, by eliminating the fertilizer (fertilizer in the solution will kill about 50% of the seed within 20-30 minutes exposure). Also, seed needs to be in contact with the soil. If large amounts of mulch (over 200 lbs/ac.) are used in the slurry, then a majority of the seed will be suspended in the mulch matrix and will likely perish before the seedlings can become established. Please revise the plan to mix only enough mulch with the seed (the mulch is a tracer to identify where seed is applied) and to not use any fertilizer in the seed slurry. If fertilizer is needed, it must be applied separately. (LK)

The NOI also states that the seeding rate will be doubled for areas that will be broadcast seeded. With the proposed seeding rate, doubling the seeding rate should not be necessary. (LK)

R647-4-111 - Reclamation Practices

111.1 Public safety & welfare

1.12 Disposal of trash & debris

Please confirm that all parts and equipment in the boneyard will be removed from the site as part of final reclamation and no debris will be buried on site. (AG)

111.2 Reclamation of natural channels

See comments under R647-4-107.2.

111.7 Highwalls stabilized at 45 degrees or less

Please refer to comments under R647-4-113 for the highwall variance request. (AG)

111.8 All roads & pads reclaimed

Please refer to comments under R647-4-110.3. (LK)

111.9 Dams & impoundments left self draining & stable

If the pond and pad will remain in place following reclamation of the mine, please describe how it will be maintained and who will assume responsibility. A variance to this section will need to be requested under R647-4-112. (TM)

R647-4-112 - Variance

The submission requests a variance to R647-4-111.7 to allow leaving the excavation highwalls at final grade with 40 foot vertical walls between 20 foot wide benches. The benches (shelves) are proposed to be covered with six inches of soil materials and seeded. Please describe the overall slope angle for the highwall configuration proposed by providing the cross sections requested in R647-4-105.3. Please provide information to demonstrate the safety and stability of the proposed highwall configurations or explain why these issues are not significant. This information may include stability calculations, geologic information, and historic or empirical data. Please describe

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any measures which will ensure public safety in these highwall areas after final reclamation (i.e., berms, signs, fencing, restricted access, etc.). (AG)

R647-4-113 - Surety

The reclamation surety proposed in the submission totals \$192,027 dollars. While this amount appears to be adequate for reclamation of the 36.80 acres to be disturbed, the Division will need the information requested in this review to determine if this proposed surety amount is adequate. (AG)

R647-4-115 - Confidential Information

Nothing was labeled as confidential

Attachment: Seedmix

Recommended Revegetation Species List
for

TOPSOIL STOCKPILE STABILIZATION

Geneva Rock Products, Inc.
Levan Gypsum Mine
M/023/016

Prepared by DOGM January 11, 2001

<u>Common Name</u>	<u>Species Name</u>	<u>*Rate lbs/ac (PLS)</u>
Thickspike wheatgrass	<u><i>Agropyron dasystachum</i></u>	3.0
'Piute' orchard grass	<u><i>Dactylis glomerata</i></u>	0.75
Ladac Alfalfa	<u><i>Medicago sativa</i></u>	1.0
Yellow sweetclover	<u><i>Melilotus officinalis</i></u>	0.5
Small burnet	<u><i>Sanguisorba minor</i></u>	1.5
Total		6.75 lbs/ac

*Recommended broadcast seeding rate